



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/685,234	10/14/2003	Bin Zhu	MS1-1753US	4625
22801 7590 04/06/2007 LEE & HAYES PLLC 421 W RIVERSIDE AVENUE SUITE 500 SPOKANE, WA 99201			EXAMINER HENEGHAN, MATTHEW E	
			ART UNIT	PAPER NUMBER
			2134	

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	04/06/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 04/06/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

lhptoms@leehayes.com

Office Action Summary	Application No. 10/685,234	Applicant(s) ZHU ET AL.	
	Examiner Matthew Heneghan	Art Unit 2134	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-32 and 34-48 is/are rejected.
- 7) ☐ Claim(s) 33 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/14/03, 3/28/06</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Subsequent to the initial filing of the instant application on 14 October 2003, preliminary amendments to the specification and claims were filed on 25 November 2003. Claims 1-48 have been examined.

Information Disclosure Statement

2. The following Information Disclosure Statements in the instant application have been fully considered, except as otherwise noted:

IDS filed 14 October 2003.

IDS filed 28 March 2006.

3. The fourth citation in the IDS filed 14 October 2003 was not found in the file wrapper and not considered.

Specification

4. The amendment filed 25 November 2003 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added

material which is not supported by the original disclosure is as follows: The amendment to the specification includes several changes to previously presented equations.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 5, 6, 27, and 48 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Each claim incorporates new matter into the equations that was introduced in the amendment filed 25 November 2003.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 2134

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 7-12, 14, 18, 22-24, 28, 29, 34, 37, 41, 43, 44, and 47 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,226,618 to Downs et al.

As per claims 1, 10, 22, and 24, Downs discloses a networked licensing system in which one or more (a plurality) of licenses from license authorities may be employed to determine accessibility to encrypted content in view of a signature verification. The plurality of licenses, as a group, constitute a license. Restrictions are grouped with content, which is enforced at the end-user device (see column 21, lines 23-42) and sent with the decryption key that is used to decrypt the content (see column 24, lines 47-62).

As per claims 7 and 23, the clearinghouse(s) URL(s) is packaged with the content (see column 25, line 29).

Regarding claim 8, the system is capable of being run in either a hierarchical or peer-to-peer network.

Regarding claim 9, the Clearinghouses may be trusted custodians, a consideration that necessitates their being secure from unauthorized access (see column 11, lines 19-22).

Regarding claims 11, 12, 18, 28, 29, 34, and 37, in order to be run on a computer, such a program must inherently be encoded on a computer-readable medium and executed using a processor and memory.

Regarding claims 41, 43, and 44, Downs further discloses a user device for playing back content (see column 21, lines 15-18).

Regarding claims 14 and 47, the URL is a network address.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 13 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,226,618 to Downs et al.

Downs does not disclose the use of a proxy address.

Official notice is given that it is well-known in the art to present proxy addresses instead of true addresses of secure resources, in order to make it more difficult for hackers to determine the actual addresses of servers being targeted.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to implement the invention of Downs by using proxy addresses for the network addresses of the license servers, in order to make it more difficult for hackers to determine the actual addresses of servers being targeted.

8. Claims 2-4, 15-17, 19-21, 25, 26, 30, 35, 36, 38-40, 42, and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,226,618 to Downs et al. as applied to claim 1 et al. above, and further in view of Stadler, "Publicly Verifiable Secret Sharing," Advances in Cryptology – EUROCRYPT '96, pp. 190-199, 1996.

Regarding claims 19 and 21, Downs does not disclose a mechanism by which the multiple licenses (the partial license) are used to combine into a whole license.

Stadler discloses a Verifiable Secret Sharing (VSS) nomenclature for signature distribution (as per licenses) and notes that this scheme allows for the verification that the shares have been correctly distributed (see Section 1, second paragraph).

Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made to implement Downs' licenses using VSS, as per Stadler, to allow for the verification that the shares have been correctly distributed.

Regarding claims 2, 15, 20, 25, 26, 30, 35, 38, 42, and 45, Stadler's system discloses a threshold scheme in where at least k parts of the signature must be collected in order to verify it (see Section 3.2).

Regarding claims 3, 4, 16, 17, and 36, the digital signature distributed by Downs is derived from the content of the license, after being subjected to an encryption algorithm such as RSA, which is asymmetric (see column 25, lines 32-35). This is the signature that is then distributed as per Stadler.

Regarding claims 39 and 40, the Downs' Clearinghouses also provide content.

9. Claims 31 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,226,618 to Downs et al. as applied to claim 1 et al. above, and further in view of Schneier, "Applied Cryptography," 1996, pp. 183-184.

Downs does not disclose the updating of keys.

Schneier discloses the need to regularly update keys, such as once per day, noting that the longer a key is used, the greater the chance that it will be compromised. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to update the keys of Downs regularly, as per Schneier, as the longer a key is used, the greater the chance that it will be compromised.

Any complete updating operation must necessarily require the updating of all the partial licenses; since the keys have been changed, the old keys cannot work with the new values.

Allowable Subject Matter

10. Claim 33 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. Claims 5, 6, 27, and 48 would be allowable if rewritten to overcome the rejection under 35 U.S.C. 112, 1st paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

12. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 33, no art could be found that would suggest the updating of such keys using the algorithm being claimed.

Regarding claims 5, 6, 27, and 48, Stadler discloses the function for generating the claimed $f(x)$ using an equivalent equation deriving portion s_i (see Section 3.2); however, no art could be found showing the remainder of the algorithm as now claimed.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew E. Heneghan, whose telephone number is (571) 272-3834. The examiner can normally be reached on Monday-Friday from 8:30 AM - 4:30 PM Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kambiz Zand, can be reached at (571) 272-3811.

Any response to this action should be mailed to:
Commissioner of Patents and Trademarks
P.O. Box 1450
Alexandria, VA 22313-1450

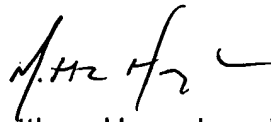
Or faxed to:
(571) 273-3800

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MEH

March 27, 2007


Matthew Heneghan, USPTO Art Unit 2134